MICHIGAN Department of Education

English Language Arts

Sample Text-Dependent Analysis (TDA) Prompts with Sample Scored Student Essays

Grade 8

M-Step™ Michigan Student Test of Educational Progress

DATA RECOGNITION DRC CORPORATION

PASSAGE

Read the following passage about how ancient Romans built a city. Then answer question *xx*.

Building a Roman City

by David Macaulay

The engineers worked throughout the winter measuring, designing, and drawing. By the spring of 25 B.C. (the Roman year 728) the master plan for Verbonia was ready. The center of the castrum[1] became the center of the city. The main street running from north to south was now called the cardo, the one from east to west, the decumanus. Both were widened and lengthened, and the rectangular area of the camp was increased to seven hundred and twenty yards long by six hundred and twenty yards wide. This space allowed a maximum population of approximately 50,000. A greater number, the planners believed, would make the city too large and unable to meet the needs of the people.

The entire area was divided by roads into a chessboard pattern. Almost all of the blocks, called insulae, were eighty yards square. A high wall was designed around the city in which fortified gates were located where the main streets cut through. Around the city but inside the wall a thirty-foot-wide strip of land called the pomerium was marked off. It represented the boundary of the city.

The city planners indicated those facilities which served all the residents. They designed a new and larger forum which was to become the governmental and religious center of the city. They located public water fountains, the aqueduct that would bring the water, a central food market, public baths and toilets, and an entertainment center made up of a theater and amphitheater. They also set aside spaces for future buildings.

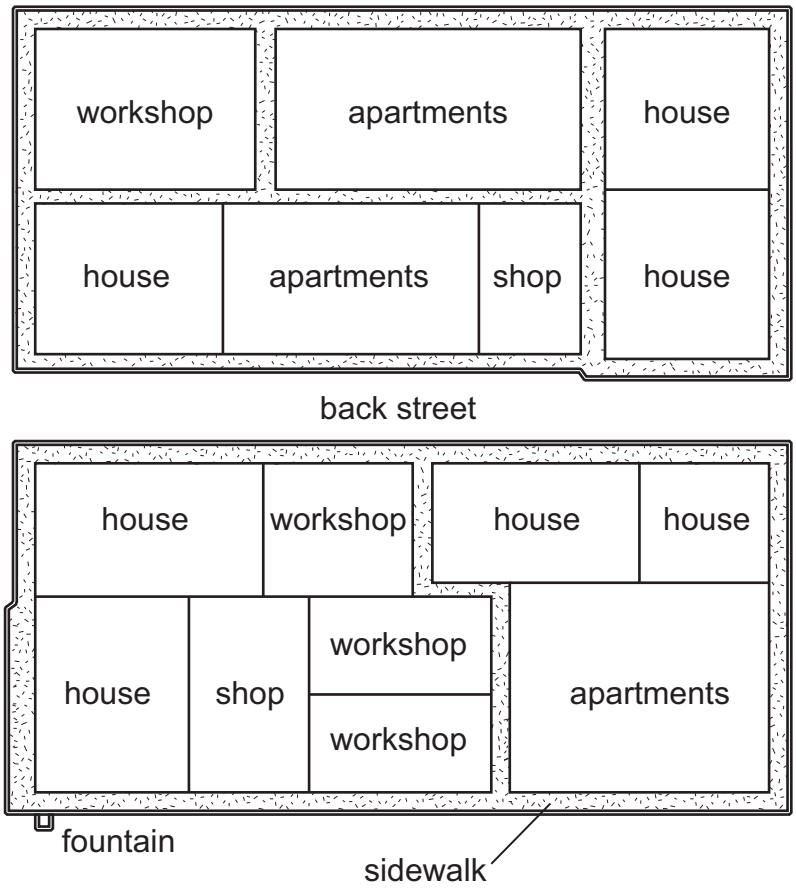
No privately owned building, they decreed, could be higher than twice the width of the street on which it stood. This ensured that sunlight always reached the streets. They also required all persons whose buildings faced one of the main streets to build, at their own expense, shelter over the sidewalk for the comfort and protection of all pedestrians.

The master plan allowed much freedom for the residents to determine the appearance and character of the city through the buildings they would construct for themselves. Each insula, left deliberately empty on the plan, would eventually be filled with buildings of all sizes and be crossed by narrow back roads and alleys.

Some of the insulae designated for private ownership were divided up among the soldiers, traders, and farmers. The names of the owners and the sizes of their holdings were inscribed on the plan and sent to the land office in Rome. A copy of the plan was carved on marble and stood in the forum for everyone to see. Even though land was given to Verbonia's first settlers, each person had to pay for the construction of his own house.

[1]castrum—a Roman fortress

Typical Insula



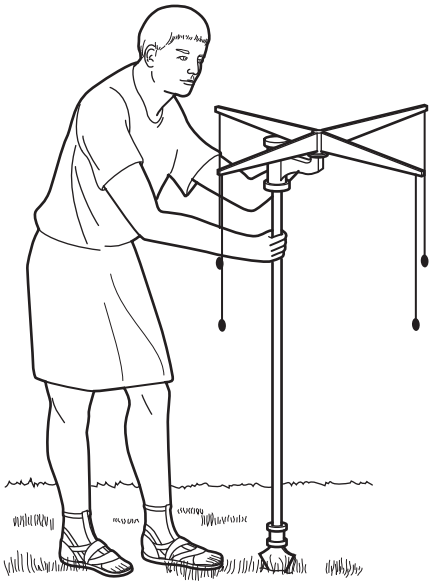
In the early summer of 25 B.C. a plow drawn by a white cow and a white bull guided by a leader of the community cut a furrow around the site. This solemn ceremony marked the location of the city wall. The plow was lifted only where gates were to be built.

Following the ceremony the surveyors marked off the roads using an instrument called a groma to make certain that all roads intersected at right angles. The groma was a pole about four feet high on top of which a cross was laid flat. When weighted strings hanging from each end of the cross hung parallel to the center pole, the groma was known to be perpendicular to the ground. The streets could be accurately marked off by sighting down the intersecting arms of the cross.

The same method was used to mark off roads and farmland outside the city.

The materials used most in the construction of Verbonia were stone, clay, mortar, and wood. The stone came from a limestone quarry owned by the government. Besides many work sheds, the quarry contained a forge for making and repairing tools and a carpenter's shop in which cranes and pulleys were built.

Groma



The skilled laborers cut, polished, or carved inscriptions in the stone. The unskilled workers separated and lifted the huge blocks from the earth. The stone was usually cut with a saw. When the stone was very hard, the blade used in the saw had no teeth; sand and steel filings were placed under the blade and the back-and-forth motion of the saw ground away the stone.

When the stone could not be sawed, a row of holes was drilled where it was to be divided. Wooden stakes were then jammed into the holes. When water was poured over the stakes, they swelled, splitting the stone along the line of holes.

The clay was made into bricks and tiles in factories near Arretium. The clay, dug out of large pits in the ground, was formed into standard shapes and sizes using wooden molds. The mold was then removed and the wet clay placed in an oven to dry and harden. All bricks and tiles were stamped with the name of the factory owner and the name of the emperor.

The mortar used between bricks and stones and in concrete was a mixture of sand, lime (a powder obtained by burning limestone), and water. When mortar was used in construction underwater, a gravelly substance called pozzolana was added, which made the mortar become extremely hard when it set.

The wood used for scaffolding and roof framework came from a forest at the foot of the Apennine Mountains to the south.

STUDENT RESPONSE

Response Score: 4 points

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

Imagine a city, expertly planned to form the perfect utopia. Due to the unfortunate lack of strong workers to transport and handle the heavy rock and clay supplies, the city lay unfinished, never to be used. Now, I would like you to Imagine a different city. This city is built with the best supplies and hardiest materials, yet it too is uninhabited due to the poor planning and lack of thought that went in to the design. This scenario demonstrates perfectly that intelligence and physical strength are both needed in the building of a city. Evidence to support this claim can be found when discussing the methods of splitting stone, the use of a groma, and the mixture of mortar.

The various ways to split stone demonstrate the necessary relationship between strength and ingenuity. Evidence to back this up can be found in the passage, "When the stone was very hard, the blade used in the saw had no teeth; sand and steel fillings were placed under the blade and the back-and-forth

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portion of the saw ground away the stone." In other words, the use of stone, which was the main supply used in building Verbonia, needed both a great deal of strength to act as well as a strong understanding of the physics behind cutting it. When dealing with harder stones especially, a capable mind was needed to figure out a way to cut it. An intelligent individual had to comprehend why the blades of the saw would break with the strain of more fortified stone. They also had to have a basic understanding of physics in order to use friction to their advantage. However, all of this would be useless if there were not strong laborers capable of handling such back-breaking labor. Intelligence is useless without strength, and vice-versa. Similar evidence can be found when examining the use of a groma.

In the text it states, "... the surveyors marked off the road using an instrument called a groma to make certain that all roads intersected at right angles." This means that a groma was needed to create working roads. That shows how strength and smarts contributed equally to the building of Verbonia. Before the physically strenuous process of road construction could begin, a groma was needed. Without a groma, which accurately marked off roads in right angles, the roads of the city would be sloppy and difficult to use. The roads of a city were perhaps one of its most needed components, since they

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were necessary for both transportation and trade. These roads are one of many aspects of a city that benefit from the essential relationship between genius and muscle.

Finally, evidence to support my statement can be found also in the making of mortar. How many times have you thought about mortar? Odds are, very little, despite the fact it is constantly surrounding you and fortifying buildings. Houses and public buildings alike benefitted from the bond between intelligence and brawn in Verbonia by way of mortar. The author writes, "The mortar used between bricks and stones and in concrete was a mixture of sand, lime, ... and water. When ... used in construction underwater, a ... substance called pozzolana was added, which made the mortar ... extremely hard." Before bricklayers could put in the hard work using a mortar in construction, a chemist had to figure out the mixture that would work best. Such a relationship was needed for essentially everything constructed in Verbona

In conclusion, evidence of the equal contribution in the building of Verbonia can be found in the method of splitting stone, the construction of roads, and the making of mortar. Never again will you have to imagine such cities as in the beginning; all thanks to the special relationship between brain and brawn.

STOP

In this response, the student effectively addresses all parts of the task, demonstrating in-depth analytic understanding of the text. There is thorough analysis of explicit and implicit meanings from the text (*"the various ways to split stone demonstrate the necessary relationship between strength and ingenuity," "When dealing with harder stones especially, a capable mind was needed to figure out a way to cut it," "they also had to have a basic understanding of physics in order to use friction to their advantage," "before the physically strenuous process of road construction could begin, a groma was needed," "Without a groma . . . the roads of the city would be sloppy and difficult to use," "roads . . . were perhaps one of its most needed components, since they were necessary for both transportation and trade,"* and *"Before bricklayers could put in the hard work using a mortar in construction, a chemist had to figure out the mixture that would work best"*). The analysis is effectively supported by substantial and direct reference to the relevant details of the text (*" 'the blade used in the saw had no teeth; sand and steel fillings were placed under the blade . . . ,' " " 'surveyors marked off the road using an instrument called a groma to make certain that all roads intersected at right angles,' "* and *" 'the mortar . . . was a mixture of sand, lime . . . and water . . . a . . . substance called pozzolana was added, which made the mortar . . . extremely hard' "*). A strong organizational structure includes an effective introduction and strong development of ideas to support the writer's purpose.

STUDENT RESPONSE

Response Score: 4 points 

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

While designing and building the Roman city of Verbonia, intelligence and physical strength played major roles. Both of these traits were equally applied throughout the construction of the city. Intelligence flourished during the planning time period. On the other hand, mostly physical strength got the job done when it came to the actual building of Verbonia.

The designing of the Roman city took a lot of time and brain power. In the passage it states, “The engineers worked throughout the winter measuring, designing, and drawing”. Therefore, each engineer was working hard to make an almost, if not, perfect city. When it finally came to the construction of Verbonia, they had to surmount several obstacles. For example, if the stone was too difficult to saw through wooden stakes were place in holes that were drilled into the stone. Then water was poured onto the stakes causing them to swell and split the rock. Also, the engineers had to invent and instrument called the groma using their intelligent brains. The groma helped make sure the streets were at right angles. The engineers of Verbonia took their time to deliberately plan and design the city, invent instruments for their convience, and avoid obstacles using all of their intelligence.

After designing came building and with that also came strength. The physical strength was well needed when the workers discovered what materials were being used. As it says in the passage, “The materials used most in the construction of Verbonia were stone, clay, mortar, and wood,” these were very heavy. As a result of man-power needed for construction, most residents were responsible for building construction themselves. When heavy materials and big city mix everyone has to contribute. “The skilled workers cut, polished, or carved inscriptions in the stone. The unskilled workers separated and lifted the huge blocks from the earth” is how it was mentioned in the passage. Even with the very cumbersome and heavy materials used to build the city, all residents used their physical strength and were able to get the job completed.

The Roman city of Verbonia was only able to be built due to the amount of intelligence and physical strength put into it. Although most of the intelligence is thought to be just in the designing of the city, that is quite the contrary. Intelligence had as much to do with construction as physical strength had to do with the designing. With that the city of Verbonia was beautifully planned and built for the many residents who contributed and lived there.

In this response, the student effectively addresses all parts of the task, demonstrating in-depth analytic understanding of the text. Thorough analysis of explicit and implicit meanings from the text (*"each engineer was working hard to make an almost, if not, perfect city," "they had to surmount several obstacles . . . ," "took their time to deliberately plan and design the city, invent instruments for their conveience and avoid obstacles," "When heavy materials and big city mix everyone has to contribute,"* and *"Although most of the intelligence is thought to be just in the designing of the city, that is quite the contrary"*) effectively supports the writer's claims, ideas, and inferences. Substantial and accurate reference is made to the text using relevant details and key ideas (*" 'engineers worked throughout the winter measuring, designing, and drawing,' " "if the stone was too difficult to saw through wooden stakes were place in holes . . . ," "the engineers had to invent and instrument called the groma using their intelligent brains," " 'materials used . . . were stone, clay, mortar, and wood' these were very heavy," " 'skilled workers cut, polished, or carved inscriptions,' "* and *" ' . . . lifted the huge blocks from the earth' "*), all of which support the writer's purpose. The response has effective organizational structure, transitions, and development of ideas.

STUDENT RESPONSE

Response Score: 3 points

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

Both intelligence and physical Strength are key needs when building anything, let alone an entire City. without both of these aspects working together no Construction would be accomplished. For example, the passage states, "The Skilled laborers cut, Polished, or Carved inscriptions in the Stone. The unskilled workers Separated and lifted the huge blocks from the earth." This is a perfect example of how intelligence and physical Strength work together. Without eachother, none of the workers would have been able to accomplish their final task. Also, throughout the entire passage, David Macaulay explains all the things that must be done in order to Construct

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a city. For example, in the first few paragraphs, Macaulay writes about all the careful planning that went into the construction of a city like Verbonia. Even something as simple as the heights of the buildings on every street had to be taken into consideration! Later on, the writer tells us how much physical labor is necessary for such a large construction project. We learn that the workers with physical strength needed to carry blocks of stone and other materials in order to finish their job! They also as carpenters and black Smiths who repaired tools, built cranes, etc. Overall this passage makes it quite clear that all workers, no matter what their talents are, were useful and a necessity to

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the construction of Verbonia. "Building a Roman City" helps us remember that without everyone using their gifts and working together, we would not be able to accomplish the goal.

In this response, the student adequately addresses all parts of the task, demonstrating sufficient analytic understanding of the text. There is clear organization to support the student's controlling idea that *"without both of these aspects working together no construction would be accomplished."* Clear analysis of explicit and implicit meanings from the text (*"the writer tells us how much physical labor is necessary," "this passage makes it quite clear that all workers, no matter what their talents are, were useful and a necessity," "helps us remember that without everyone using their gifts and working together, we would not be able to accomplish the goal"*) supports the writer's ideas, opinions, and inferences. There is sufficient reference to the main idea of the text (*" 'skilled laborers cut, polished, or carved inscriptions in the stone,' " " 'unskilled workers separated and lifted the huge blocks from the earth,' " "David Macaulay explains all the things that must be done in order to construct a city," "the heights of the buildings on every street had to be taken into consideration," "the writer tells us how much physical labor is necessary," "workers with physical strength needed to carry blocks of stone,"* and *"carpenters and black smiths who repaired tools, built cranes, etc."*), including relevant key details and examples.

STUDENT RESPONSE

Response Score: 3 points 

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

In ancient times, many skills are needed to create a city, especially since the technology then is not nearly as good, or as efficent, as it is nowadays. That being said, the most effective skills need were intelligence to plan out the city and explain to the builders how, for example, the aqueducts are supposed to be built so they can run as smoothly as possible. The other skill that needs to go hand in hand with intelligence is strength. You need both to actually be able to create such a complex creation. The combination of the two of them is highly important. For, you can have a perfect city on paper, but have no means of making it, or have the skill to build the city, but have a terrible outcome. Without the two working hand in hand, the outcome would be disapointing at the least.

Strength is just one piece of the puzzle but it is necessary. Otherwise without the strength, who would be there to left the heavy stone out of its home or crack the large limestone bricks to make it easier to build? Who would be there to chop down the hundreds of trees needed to make the roofing and framework for homes, let alone be able to lift it into place? Strength is needed in building a city, it is a necessity. On the other hand, so is intelligence. Without intelligence, who would be able to tell which road to take without the creation of the Groma? Who would have created the aqueducts complicated path's and usage for their water supply? Who would have created a city that ran efficiently and safely? Without intelligence, their would be no efficent or safe. This is why the use of both intelligence and strength is key to the creation of a city.

Strength and intelligence, you cannot have one without the other. They must work together, to cooperate to do what is in the people's best interest. Strength and intelligence need to work in perfect harmony if the people are to be satisfied. Strength and intelligence are the foundation of architecture and construction now, and then.

In this response, the student adequately addresses all parts of the task, demonstrating sufficient analytic understanding of the text. There is clear analysis of the text (*"especially since the technology then is not nearly as good, or as efficent, as it is nowadays," "You need both to actually be able to create such a complex creation," "you can have a perfect city on paper, but have no means of making it . . . Without the two working hand in hand, the outcome would be disapointing,"* and *"Strength and intelligence are the foundation of architecture and construction"*). Sufficient reference to the relevant details of the text (*"without strength, who would be there to left the heavy stone . . . or crack the limestone bricks . . . chop down the hundreds of trees"* and *"without the creation of the Groma"*) supports the writer's focus. Some errors are present in punctuation and spelling (*"efficent"* for "efficient"); however, they seldom interfere with meaning.

STUDENT RESPONSE

Response Score: 2 points 

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

The design and building of Verbonia required both intelligence and physical strength. To design and build the Verbonia, you need intelligence to now where its going to go and what its going to look like. You need strength to build the Verbonia.

One example of needing intelligence from the story is, “The engineers worked through out the winter measuring, desiging, and drawing.” Which means the worked hard on planning out the Verbonia which takes intelligence

Also you need physical strength. In the story it says “The unskilled workers separated and lifted the huge blocks from the earth.” That would take alot of strength

So you see to design and build the verbonia you need intellegence and physical strength to now were it goes and to build it.

This response inconsistently addresses some parts of the task, demonstrating partial analytic understanding of the text. The analysis of how intelligence and physical strength contributed to the building of a city (*“you need intelligence to [k]now where its going to go and what its going to look like”*) is weak. There is some reference to the main ideas and relevant details of the text through quotes. Weak development of ideas somewhat supports the writer’s purpose. Errors present include spelling (*“intellegence”* for “intelligence”) and usage (*“its”* for “it’s,” *“now”* for “know,” *“the”* for “they,” *“were”* for “where”), which can interfere with meaning.

STUDENT RESPONSE

Response Score: 2 points

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

Intelligence and physical strength was need to build the city of Verbonia. Many men would work for many hours drawing models of the city. The drawing would be carred into a giant piece of Marble and later used as a reference. The Groma needed a lot of knowledge to use it since the person who measured with it to mark the border needed to know where it was and how to line up the marks. Physical strength was needed to pick up and carry rocks to build the city. The workers would use pulleys and cranes. The more supplies the workers used meant it was more expensive. The city wanted it to be a giant and make it look like a checker board. The end result would be an Insula.

This response inconsistently addresses some parts of the task, demonstrating partial analytic understanding of the text. The attempt at analysis (*"since the person who measured with it to mark the border needed to know where it was and how to line up the marks"*) is weak. Vague reference to the text, using some examples, only inconsistently references the main ideas and relevant details from the text (*"the drawing would be carved into a giant piece of marble," "the workers would use pulleys and cranes"*). There is also information drawn from the text which appears to be confused (*"The city wanted it to be a giant and make it look like a checker board. The end result would be an Insula"*). The response has a weak introduction, no conclusion, and weak overall organizational structure, all of which inconsistently support the writer's focus. Errors are present in usage (*"need"* for "needed"), and there is some awkward sentence formation that sometimes interferes with meaning.

STUDENT RESPONSE

Response Score: 1 point 

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

Verbonia Is an old city. They spent a long time planning for this city, through winter measuring, designing, and drawing Ideas for the city. This city needed alot of physicle strength and intelligence to build! the person that designed the city needed to have a very creative mind, and had to know alot about engineering for when it was build. This city needed alot of physicle strength because, the building dont Just build themselfs! they need someone to build them, and back then it would have been harder due to less technolegy to help them build the stuff. It also takes a lot of determination to build that city. Its alot of hard work to build that city.
They need intelegence also because they needed to know How to use the tools right. Probably took them a long time to build it to!

This response minimally addresses part of the task, demonstrating inadequate analytic understanding of the text. The student's attempt at analysis is simplistic (*"the person that designed the city needed to have a very creative mind, and had to know alot about engineering"*). An additional attempt at analysis is vague (*"it would have been harder due to less technol[o]gy"*). There is insufficient reference to relevant details from the text: the only information from the text is found in the opening sentence (*"planning for this city, through winter measuring, designing, and drawing"*), which is a nearly verbatim paraphrasing of the first line of the passage. Minimal evidence of an organizational structure is present. Errors are present in usage (*"to"* for "too"), spelling (*"alot"* for "a lot", *"physicle"* for "physical"), punctuation, and capitalization.

STUDENT RESPONSE

Response Score: 1 point

xx. The design and building of Verbonia required both intelligence and physical strength. Write an essay analyzing how intelligence and physical strength equally contributed to the building of a city. Use evidence from the passage to support your response.

The design and of Verbonia required intellrgence because with out knowing what to do you can't probably build anything. An example is when they describe what kind of material they need such as clay because they tell you what it takes to make and how streng it is so incase of anythinghappen - ning.

The building of Verbonia required physical strength because without it Verbiona would crash to the ground. An example is when trucks can take hits from major storms.

This response minimally addresses part of the task, demonstrating inadequate analytic understanding of the text. There are insufficient and confusing attempts at analysis (*"with out knowing what to do you can't probably build anything"* and *"without it Verbonia would crash to the ground"*). Insufficient reference to the text is made (*"material they need such as clay because they tell you what it takes to make . . . "*), and there is minimal reference to the main ideas and relevant details of the text. Minimal evidence of an organizational structure is present; the response lacks transitions, an introduction, and a conclusion. The many errors presented in sentence formation often interfere with meaning.

Acknowledgments

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